PATENT COOPERATION TF. ATY

	From the INTERNATIONAL BUREAU		
PCT	То:		
NOTIFICATION OF THE RECORDING OF A CHANGE (PCT Rule 92bis.1 and Administrative Instructions, Section 422) Date of mailing (day/month/year) 27 November 2000 (27.11.00) Applicant's or agent's file reference 138038 International application No.	NEVILLE, Peter, Warwick BTG International Limited 10 Fleet Place Limeburner Lane London EC4M 7SB ROYAUME-UNI IMPORTANT NOTIFICATION International filing date (day/month/year)		
PCT/IB00/00329	22 March 2000 (22.03.00)		
The following indications appeared on record concerning: The applicant the inventor	the agent the common representative		
Name and Address ROLIC AG Innere Güterstrasse 2 CH-6301 Zug Switzerland	State of Nationality CH CH Telephone No.		
	Teleprinter No.		
		_	
2. The International Bureau hereby notifies the applicant that the the person the name X the add			
Name and Address	State of Nationality State of Residence CH CH		
ROLIC AG Chamerstrasse 50 CH-6301 Zug Switzerland	Telephone No.	-	
Swizerianu	Facsimile No.		
	Teleprinter No.		
3. Further observations, if necessary:			
4. A copy of this notification has been sent to:	• .		
X the receiving Office	X the designated Offices concerned		
X the International Searching Authority	the elected Offices concerned		
the International Preliminary Examining Authority	other:		
	Authorized officer		
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Christine Carrié		
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38		

Form PCT/IB/306 (March 1994)

003685663

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To

Commissioner
US Department of Commerce
United States Patent and Trademark

Office, PCT

2011 South Clark Place Room

CP2/5C24

Arlington, VA 22202

ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year)
04 December 2000 (04.12.00)

International application No. PCT/IB00/00329

International filing date (day/month/year) 22 March 2000 (22.03.00)

Applicant's or agent's file reference 131228 RO/ML

Priority date (day/month/year)

24 March 1999 (24.03.99)

Applicant

MOIA, Franco

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· —	19 00	tober 2000 (19.10.00	<u> </u>	
in a notice effecting la	iter election filed wit	h the International Burea	u on:	•
				
The election X was				
was no	ot			
			Rule 32 applies s	within the time limit under
	of 19 months from t	ne priority date or, where	noie oz applies, i	within the time time dide.
made before the expiration (Rule 32.2(b).	of 19 months from t	ne priority date or, where		·
	of 19 months from ti	ne priority date or, where	Note 32 applies, v	·
	of 19 months from ti	ne priority date or, where	nuie 32 applies, v	·
	of 19 months from ti	ne priority date or, where	nuie 32 applies, v	

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Olivia TEFY

Facsimile No.: (41-22) 740.14.35 Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

	From the INTERNATIONAL BUREAU			
PCT	To:			
NOTIFICATION OF THE RECORDING OF A CHANGE (PCT Rule 92bis.1 and Administrative Instructions, Section 422)	LIEBETANZ, Michael Isler & Pedrazzini AG Postfach 6940 CH-8023 Zurich SUISSE			
Date of mailing (day/month/year) 04 December 2000 (04.12.00)				
Applicant's or agent's file reference 131228 RO/ML	IMPORTANT NOTIFICATION			
International application No. PCT/IB00/00329	International filing date (day/month/year) 22 March 2000 (22.03.00)			
Name and Address	X the agent the common representative State of Nationality State of Residence			
NEVILLE, Peter, Warrick BTG INTERNATIONAL LIMITED Limemburner Lane London, EC4M 7SB United Kingdom	Telephone No.			
-	1 austrine No.			
	Teleprinter No.			
2. The International Bureau hereby notifies the applicant that the	he following change has been recorded concerning:			
the person the name the add	dress the nationality the residence			
Name and Address LIEBETANZ, Michael	State of Nationality State of Residence			
Isler & Pedrazzini AG Postfach 6940 CH-8023 Zurich	Telephone No. 41 1 283 4700			
Switzerland	Facsimile No.			
	41 1 283 4747			
	Teleprinter No.			
3. Further observations, if necessary:				
4. A copy of this notification has been sent to:				
X the receiving Office	the designated Offices concerned			
the International Searching Authority	X the elected Offices concerned			
the International Preliminary Examining Authority	other:			
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Olivia TEFY			
	Telephone No.: (41-22) 338 83 38			

Form PCT/IB/306 (March 1994)

09/937144 PATENT COOPERATION TREATY

PCT

REC'D 2 6 JUN 2001

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

	M- 69			
131228RO/	agent's file reference MD	FOR FURTHER ACTION		n of Transmittal of International amination Report (Form PCT/IPEA/416)
International ap	oplication No.	International filing date (day/mon	h/year) P	riority date (day/month/year)
PCT/IB00/0	0329	22/03/2000	2	4/03/1999
International Page 19/07	atent Classification (IPC) or na 7	! tional classification and IPC		
Applicant		•		
ROLIC AG	et al.			
	rnational preliminary exami ansmitted to the applicant a		d by this Interna	tional Preliminary Examining Authority
2. This REF	PORT consists of a total of	6 sheets, including this cover s	sheet.	
beer (see	n amended and are the bas	sis for this report and/or sheets Of of the Administrative Instruct	containing rectifi	laims and/or drawings which have cations made before this Authority PCT).
· _	ort contains indications rela Basis of the report	ting to the following items:		
_	Priority			•
l .	_	pinion with regard to novelty, in	ventive step and	I industrial applicability
_	☐ Lack of unity of invention	=	, , , , , , , , , , , , , , , , , , ,	
V E	Reasoned statement ur		novelty, invention	ve step or industrial applicability;
VI [☐ Certain documents cite	ed 🥒		·
Ì	oxtimes Certain defects in the in			
VIII E	⊠ Certain observations or	n the international application		
Date of submis	sion of the demand	Date of	completion of this	report
19/10/2000		21.06.2	001	
preliminary exa	ling address of the international mining authority: uropean Patent Office -80298 Munich	Authori	zed officer	STEPHENDES AND THE STEPHENDS
<i></i> т	el. +49 89 2399 - 0 Tx: 523656	epmu d		The state of the s
ı Fâ	ax: +49 89 2399 - 4465	I Tolomb	no No . 40 00 00	00.0400

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/IB00/00329

 Basis of the r 	port
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١.	the and	receiving Office in	ments of the international response to an invitation to this report since they do	under Article 14 are	referred to in this	report as "originally filed"
	1-1	1	as originally filed			
	Cla	ims, No.:				
	1-1	2	as received on	14/04/2001	with letter of	14/04/2001
	Dra	wings, sheets:				•
	1/4	-4/4	as originally filed			
2.	Witi lang	h regard to the lang	guage, all the elements m international application w	arked above were a vas filed, unless othe	vailable or furnishe erwise indicated ur	ed to this Authority in the nder this item.
	The	ese elements were a	available or furnished to th	nis Authority in the fo	ollowing language:	, which is:
			translation furnished for th			n (under Rule 23.1(b)).
		the language of pu	ublication of the internation	nal application (unde	er Rule 48.3(b)).	
		the language of a 55.2 and/or 55.3).	translation furnished for th	ne purposes of inter	national preliminar	y examination (under Rule
3.	With inte	n regard to any nuc rnational preliminar	eleotide and/or amino ac y examination was carried	id sequence disclosed out on the basis of	sed in the internati f the sequence listi	onal application, the ng:
		contained in the in	ternational application in v	written form.		
		filed together with	the international application	on in computer read	able form.	
		furnished subsequ	ently to this Authority in w	ritten for		
		furnished subsequ	ently to this Authority in c	omputer readable fo	orm.	
			t the subsequently furnish pplication as filed has bee		e listing does not g	o beyond the disclosure in
		The statement that listing has been full	t the information recorded rnished.	in computer readat	ole form is identica	to the written sequence
١.	The	amendments have	resulted in the cancellation	on of:		·
		the description,	pages:			
		the claims,	Nos.:			•

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/IB00/00329

		the drawings,	sheets:
5.			established as if (some of) the amendments had not been made, since they have been cond the disclosure as filed (Rule 70.2(c)):
		(Any replacement sh report.)	eet containing such amendments must be referred to under item 1 and annexed to this
6.	Addi	itional observations, if	f necessary:

- V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Novelty (N)

Yes: No: Claims

Claims 1-12

Inventive step (IS)

Yes: Claims

No: Claims 1-12

Industrial applicability (IA)

Yes: Claims 1-12

No: Claims

2. Citations and explanations see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted: see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

It m V

Reasoned statement under Article 35(2) PCT with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The following documents from the International Search Report have been considered for the purposes of this report:

D1 = EP-A-0810590

D2 = EP-A-0651382

D3 = JP-A-63273214

D4 = JP-A-63271719

D5 = EP-A-0611981

D3 and D4 via the corresponding entry in WPI/DERWENT ABSTRACTS D1 and D2 have been cited in the International Search Report. D3, D4 and D5 are cited in the light of the PCT International Preliminary Examination Guidelines. Chapter VI-7.24.; copies of D3, D4 and D5 have already been annexed to the written opinion.

2. Novelty

Present claim 1 does not comply with the requirements of Article 33(2) PCT for the following reasons:

Present claim 1 as worded attempts to define the subject-matter in terms of the result to be achieved rather than in structural terms. In particular, the feature "creating a normally hidden image which can be revealed by means which do not tend to rewrite the visible information" used to specify the layer overlapping the information recording layer does not specify the layer in terms of its structural features, but defines the final result achieved therewith, i.e, creating a hidden image. The real structure of the said layer, i.e., its composition or the compounds constituting the layer are not further defined in the claim. Thus, the present definition of the said layer leaves the reader in doubt which particular materials out of the plurality of the known materials in the prior art have to be used for realizing the said layer in claim 1, and therefore it does not enable to delimit the layer and in particular the claimed item from the prior art. It is therefore impossible to determine the matter for which protection is sought so that an undue burden is placed on others seeking to establish the extent of the protection conferred by the claim.

Thus, in examining novelty/ inventive step of the subject-matter of claim 1 as presently worded, the item has been interpreted as an item carrying a visible information recording layer and a further layer. The objected feature above referring to the further layer has not been taken into account, since the said feature is not suitable to delimit neither the layer nor the claimed item from the prior art.

Items carrying a visible information recording layer and a further layer are known from D1 and D2 (see the claims in D1 and D2). Items carrying visible information in a thermosensitive material recording layer and comprising a further layer are already known from D3 and D4. It is pointed out, that also the optical components for image data storage comprising a cholesteric filter and further layers disclosed in D5 (see the claims and figures 1 to 7), also deprive claim 1 of novelty for the reasons indicated above. Therefore, the subject-matter of claim 1 is not new as required by Article 33(2) PCT.

The subject-matter of claims 2 and 10 is also known from D1 and D2, of claims 3 to 7 is also known from D2 and of claims 8 and 9 is also known from D3 and D4 for the reasons already put forward against claim 1 above. The subject-matter of claims 11 and 12 is also known from D5.

3. **Inventive Step**

The subject-matter of claims 1 to 12 does not involve an inventive step, since the items defined in claims 1 to 12 are already known from the prior art (see section 2. above). Therefore, the claims do not comply with the requirements of Article 33(3) PCT.

4. Present claims 1 to 12 comply with the requirements of Article 33(4) PCT (industrial applicability).

Item VII

Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

- 1. There are trade marks in the description on pages 6 and 8 which are not identified as such.
- 2. The application does not meet the requirements of Rule 10.1(a) PCT, since the unit "microns" used in the description is not a metric unit.

Item VIII

Certain observations on the international application

The following observations on the clarity of the claims, description and drawings or on the question whether the claims are fully supported by the description, are made:

- 1. Claims 1 and 10 do not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined for the following reasons:
- 1.1 The feature in claim 1 "... a layer.....creating a normally hidden image which can be revealed by means which do not tend to rewrite the visible information" does not specify the claimed item in terms of its structural features, but defines the final result achieved with a layer of the item. The real composition or the compounds constituting the said layer are not defined in the claim. Thus, the present definition for the layer leaves the reader in doubt which particular materials out of the plurality of the known materials in the prior art are have to be used for the said layer to produce the item in claim 1; therefore, it is impossible to determine the matter for which protection is sought so that an undue burden is placed on others seeking to establish the extent of the protection conferred by the claim.
- 1.2 The objection raised for claim 1 above also applies for the subject-matter of claim 10, since the item in this claim is also defined in terms of a result to be achieved rather than in structural terms.
- 1.3 The expression "normally hidden" used in claims 1, 3, 4 and 10 to specify the image is vague and unclear and leaves the reader in doubt as to the meaning of the technical feature of the image to which it refers, thereby rendering the definition of the subject-matter of said claims unclear (Article 6 PCT).
- 2. The term "about" used in the description is vague and indefinite.

ATENT COOPERATION TREAT

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Telemational application No. International filing date (day/month/year) (Earliest) Priority Date (day/month/year)	Applicant's or agent's file reference	(Form PCT/IS	n of Transmittal of International Search Report A/220) as well as, where applicable, item 5 below.
Applicant ROLIC AG et a1. This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Search Report consists of a total of		ACTION	
Applicant ROLIC AG et a1. This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Actice 18. A copy is being transmitted to the International Bureau. This International Search Report consists of a total of	International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant seconding to Article 18. A copy is being transmitted to the International Bureau. This International Search Report consists of a total of	PCT/IB 00/00329	22/03/2000	24/03/1999
This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau. This International Search Report consists of a total of	Applicant		
This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau. This International Search Report consists of a total of			
according to Article 18. A copy is being transmitted to the International Bureau. This International Search Report consists of a total of	ROLIC AG et al.	· · · · · · · · · · · · · · · · · · ·	
It is also accompanied by a copy of each prior art document cited in this report. 1. Basis of the report a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item. the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)). With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing: contained in the international application in written form. filed together with the international application in written form. furnished subsequently to this Authority in computer readable form. furnished subsequently to this Authority in computer readable form. the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished to the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished to the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished to the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished to the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished. With regard to the tittle,	This International Search Report has beer according to Article 18. A copy is being tra	n prepared by this International Searching A Insmitted to the International Bureau.	uthority and is transmitted to the applicant
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	as suggested by the appli	cant.	None of the figures.
because this figure better characterizes the invention.			
	because this figure better	characterizes the invention.	

Form PCT/ISA/210 (first sheet) (July 1998)

A. CLASSIFICATION OF SUBJECT MATTER G06K19/077

According to International Patent Classification (IPC) or to both national classification and IPC7

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G11B,G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
А	EP 0810590 A (IBM CORPORATION) 03 December 1997, page 5, line 27 - page line 14, fig. 1-5.	1-10
A	EP 0651382 A (AKZO NOBEL N.V.) 03 May 1995, column 1, line 14 - column 5, line 53, fig. 2.	1-9
Α	US 5625446 A (BEDARD) 29 April 1997, claim 1, fig. 1-5.	. 1
Α	FR 2756954 A (SOLAIC SOCIETE ANONYME)	1

(SOLATE SOCIETE ANOMINE)	•			
Further documents are listed in the continuation of box C.	Patent family members are listed in annex.			
Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family			
Date of the actual completion of the international search 29 June 2000	Date of mailing of the international search report 2 5. 08. 2000			
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer MIHATSEK			

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Continuati	ntinuation) DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No.					
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	12 June 1998,					
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ANHANG ___

Zum internationalen Reche enbericht über die internationale Patentanmeldung Nr.

In diesem Anhang sind die Mitglieder der Patentfamilien der im obengenannten internationalen Recherchenbericht angeführten Patentdokumente angegeben. Diese Angaben dienen nur zur Unterrichtung und erfolgen ohne Gewähr.

ANNEX

To the International Search Report to the international Patent Application No.

PCT/IB 00/00329 SAE 273155

This annex lists the patent family members relating to the patent documents cited in the above-mentioned search report.

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ANNEXE

Au rapport de recherche international relativ à la demande de brevet international n°

La presénte annexe indique les membres de la famille de brevets relatifs aux documents de brevets cités dans le rapport de recherche international visée ci-dessus. Les renseignements fournis sont donnés à titre indicatif et n'engagent pas la responsibilité de l'Office

Im Recherchenbericht angeführte Patentdokumente Patent document cited in search report Document de brevet cité dans le rapport de recherche		Patentdokumente document cited earch report nt de brevet cité	Datum der Veröffentlichung Publication date Date de publication	Mitglied(er) der Patentfamilie Patent family member(s) Membre(s) de la famille de brevets		Datum der Veröffentlichung Publication date Date de publication	
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FR	A1	2756954	12-06-1998			none	
FR	В1	2756954	15-01-1999				

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WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7:

G06K 19/077

A1

(11) International Publication Number:

WO 00/57356

(43) International Publication Date:

28 September 2000 (28.09.00)

(21) International Application Number:

PCT/IB00/00329

(22) International Filing Date:

22 March 2000 (22.03.00)

(30) Priority Data:

9906817.3

24 March 1999 (24.03.99)

GB

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(74) Agent: NEVILLE, Peter, Warwick; BTG International Limited, 10 Fleet Place, Limeburner Lane, London EC4M 7SB (GB). (81) Designated States: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: ITEM CARRYING REWRITABLE VISIBLE INFORMATION

Combination of the Leuco dye (white base) and Cholesteric LPP/LCP device enables the recognition resp. the verification of the correct information of the cholesteric LPP/LCP security device (here the letters OK are shown): optical appearance for the polarizer direction -45°: positive image



polarizer direction

(57) Abstract

Erasable and re-writable panel comprising an additional optical device which contains normally hidden images. These images can be made visible by specific techniques without changing the information of that panel. Furthermore, the panel containing the permanent visible information can be erased and re-written without alteration of the said additional optical device.

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CLAIMS

- 1. An item carrying rewritable visible information, characterised by a normally hidden image which can be revealed by means which do not tend to rewrite the visible information.
- 2. An item according to Claim 1, wherein the said means are light and a polariser.
- 10 3. An item according to Claim 1 or 2, wherein the normally hidden image is carried in at least one optically anisotropic layer having regions with different preferred directions.
- 4. An item according to any one of Claims 1 to 3, wherein the normally hidden image is carried in a liquid crystalline medium.
 - 5. An item according to Claim 3, wherein the optically anisotropic layer is formed with cross-linked liquid crystalline monomers or pre-polymers.
- 20 6. An item according to Claim 4 or 5, which comprises an orientation layer for liquid crystal molecules.
 - 7. An item according to Claim 6, wherein the orientation layer is formed of a linearly photopolymerised polymer network.
 - 8. An item according to any preceding Claim, wherein the rewritable visible information is carried in a thermosensitive recording material.
- 9. An item according to Claim 8, wherein the thermosensitive recording material comprises a leuco dye and developer.

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10. An item according to any preceding Claim, wherein the visible information co-operates with the normally hidden image to reveal other information.

- 5 11. An item according to any preceding Claim, which comprises a cholesteric filter.
- 12. An item according to any one of Claims 3 to 10, wherein a cholesteric filter is arranged between the optically anisotropic layer and the rewritable visible information.